

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re application of:

Khan *et al.*

Appl. No. 09/783,034

Filed: February 15, 2001

For: **Die-Down Ball Grid Array  
Package With Die-Attached Heat  
Spreader And Method For  
Making The Same**

Confirmation No. 5713

Art Unit: 2826

Examiner: Andujar, Leonardo

Atty. Docket: 1875.0210000

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**Supplemental Information Disclosure Statement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application

does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☒ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed within three months of the date of filing of a national application other than a continued prosecution application (CPA), OR within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, OR before the mailing date of a first Office Action on the merits OR before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.
- ☐ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
  - ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).

- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).
- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Attached is our PTO-2038 Credit Card Payment Form **[OR]** Check No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:
  - ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
  - ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version

of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.

- ☐ 6. A concise explanation of the relevance of the non-English language document(s) appears below:
- ☐ 7. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. \_\_\_\_\_, filed \_\_\_\_\_, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



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Attorney for Applicants  
Registration No. 45,608

Date: 11-17-03

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
1875.0210000APPLICATION NO.  
09/783,034APPLICANT  
Khan *et al.*FILING DATE  
February 15, 2001GROUP  
2826**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	10/284,312	3/27/2003	Zhao <i>et al.</i>			10/31/2002
	AB1	10/284,340		Zhao <i>et al.</i>			10/31/2002
	AC1	10/201,891	12/12/2002	Zhao <i>et al.</i>			7/25/2002
	AD1	10/200,336	12/12/2002	Khan <i>et al.</i>			7/23/2002
	AE1	10/197,438	12/12/2002	Zhao <i>et al.</i>			7/18/2002
	AF1	10/201,309	12/19/2002	Khan <i>et al.</i>			7/24/2002
	AG1	10/201,893	12/12/2002	Zhao <i>et al.</i>			7/25/2002
	AH1	10/200,255	12/19/2002	Zhao <i>et al.</i>			7/23/2002
	AI1	10/101,751		Zhao <i>et al.</i>			3/21/2002
	AJ1	10/253,600		Zhong <i>et al.</i>			9/25/2002
	AK1	10/284,371	8/7/2003	Khan <i>et al.</i>			10/31/2002

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1						Yes No
	AM1						Yes No
	AN1						Yes No
	AO1						Yes No
	AP1						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA2	10/284,349	8/7/2003	Khan <i>et al.</i>			10/31/2002
	AB2	10/284,166	8/7/2003	Zhao <i>et al.</i>			10/31/2002
	AC2	10/284,366	8/7/2003	Zhao <i>et al.</i>			10/31/2002
	AD2	5,173,766	12/22/1992	Long <i>et al.</i>			0625/1990
	AE2	5,216,278	6/1/1993	Lin <i>et al.</i>			03/02/1992
	AF2	5,285,352	2/8/1994	Pastore <i>et al.</i>			07/15/1992
	AG2	5,552,635	9/3/1996	Kim <i>et al.</i>			1/10/1995
	AH2	5,866,949	02/02/1999	Schueller			10/8/1997
	AI2	5,949,137	09/07/1999	Domadia <i>et al.</i>			09/26/1997
	AJ2	5,986,340	11/16/1999	Mostafazadeh <i>et al.</i>			5/2/1996
	AK2	6,084,297	7/4/2000	Brooks <i>et al.</i>			9/3/1998

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2						Yes No
	AM2						Yes No
	AN2						Yes No
	AO2						Yes No
	AP2						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA3	6,246,111 B1	6/12/2001	Huang <i>et al.</i>			1/25/2000
	AB3	6,288,444 B1	9/11/2001	Abe <i>et al.</i>			6/4/1999
	AC3	6,369,455 B1	4/9/2002	Ho <i>et al.</i>			4/7/2000
	AD3	6,472,741 B1	10/29/2002	Chen <i>et al.</i>			7/14/2001
	AE3	6,525,942 B2	2/25/2003	Huang <i>et al.</i>			5/18/2001
	AF3	6,541,832 B2	4/1/2003	Coyle			1/19/2001
	AG3	6,545,351 B1	4/8/2003	Jamieson <i>et al.</i>			3/27/2000
	AH3	US2003/0138613 A1	7/24/2003	Thoman <i>et al.</i>			1/24/2002
	AI3	5,065,281	11/12/1991	Hernandez <i>et al.</i>			2/12/1990
	AJ3	5,717,252	2/10/1998	Nakashima <i>et al.</i>			12/2/1996
	AK3	5,856,911	1/5/1999	Riley			11/12/1996

**FOREIGN PATENT DOCUMENTS**

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	AL3						Yes No
	AM3						Yes No
	AN3						Yes No
	AO3						Yes No
	AP3						Yes No

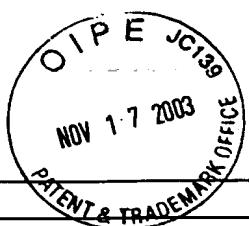
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

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**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA4	6,313,521 B1	11/6/2001	Baba			11/3/1999
	AB4	6,462,274 B1	10/8/2002	Shim <i>et al.</i>			10/20/1999
	AC4	6,528,892,B2	3/4/2003	Caletka <i>et al.</i>			6/5/2001
	AD4	6,563,712 B2	5/13/2003	Akram <i>et al.</i>			5/16/2002
	AE4	6,011,694	1/4/2000	Hirakawa			8/1/1997
	AF4	5,541,450	7/30/1996	Jones <i>et al.</i>			11/2/1994
	AG4	6,583,516 B2	6/24/2003	Hashimoto			11/1/2001
	AH4	6,552,266 B2	4/22/2003	Carden <i>et al.</i>			1/26/2001
	AI4	6,002,147	12/14/1999	Iovdalsky <i>et al.</i>			9/26/1996
	AJ4	6,060,777	5/9/2000	Jamieson <i>et al.</i>			7/21/1998
	AK4	5,920,117	7/6/1999	Sono <i>et al.</i>			3/18/1997

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	AO3						Yes No
	AP3						Yes No

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA5	5,650,659	7/22/1997	Mostafazadeh <i>et al.</i>			8/4/1995
	AB5	5,977,626	11/2/1999	Wang <i>et al.</i>			8/12/1998
	AC5	5,294,826	3/15/1994	Marcantonio <i>et al.</i>			4/16/1993
	AD5	6,552,428 B1	4/22/2003	Huang <i>et al.</i>			10/12/1999
	AE5	5,208,504	05/04/1993	Parker <i>et al.</i>			12/28/1990
	AF5	5,366,589	11/22/1994	Chang			11/16/1993
	AG5	5,394,009	02/28/1995	Loo			07/30/1993
	AH5	5,433,631	07/18/1995	Beaman <i>et al.</i>			06/29/1994
	AI5	5,907,903	06/01/1999	Ameen <i>et al.</i>			01/08/1998
	AJ5						
	AK5						

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL3						Yes No
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	AN3						Yes No
	AO3						Yes No
	AP3						Yes No

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